The Wobbly Oscillator

Cuyahoga Amateur Radio Society

March 2024 Volume 54 Number 3

Hams Who Serve

Happy St. Patrick's Day

From The Prez

Toby, WT8O

March Dinner Meeting
My Friends Restaurant

We will be holding our March meeting at My Friends Restaurant, 11616 Detroit Ave. in Clevland. The eatery is located just east of West 117th St. Reservations will be for 6:00 PM, giving us plenty of time to enjoy a leisurely meal with our fellow members before the actual business meeting, which will start at its normal time of 7:30. We always emphasize dinner is optional, members may skip dinner and come at their usual time to attend the meeting. We have had several dinner meetings at My Friends Restaurant in the past. Those who attended were always pleased with the food, service, and atmosphere.

With an extensive agenda planned for the meeting we will not have one of our customary programs, allowing us ample time to concentrate on the numerous items scheduled for discussion. A partial list of the subjects we will be discussing includes the Hamvention bus, club license trustees, positions requiring help or replacement, increasing club membership, improving the club, and of course, Field Day.

So plan on a relaxing evening out with good food, good friends, and lots of good ham radio conversation. Plan on attending our dinner meeting March 12th at My Friends Restaurant.

Board Meeting

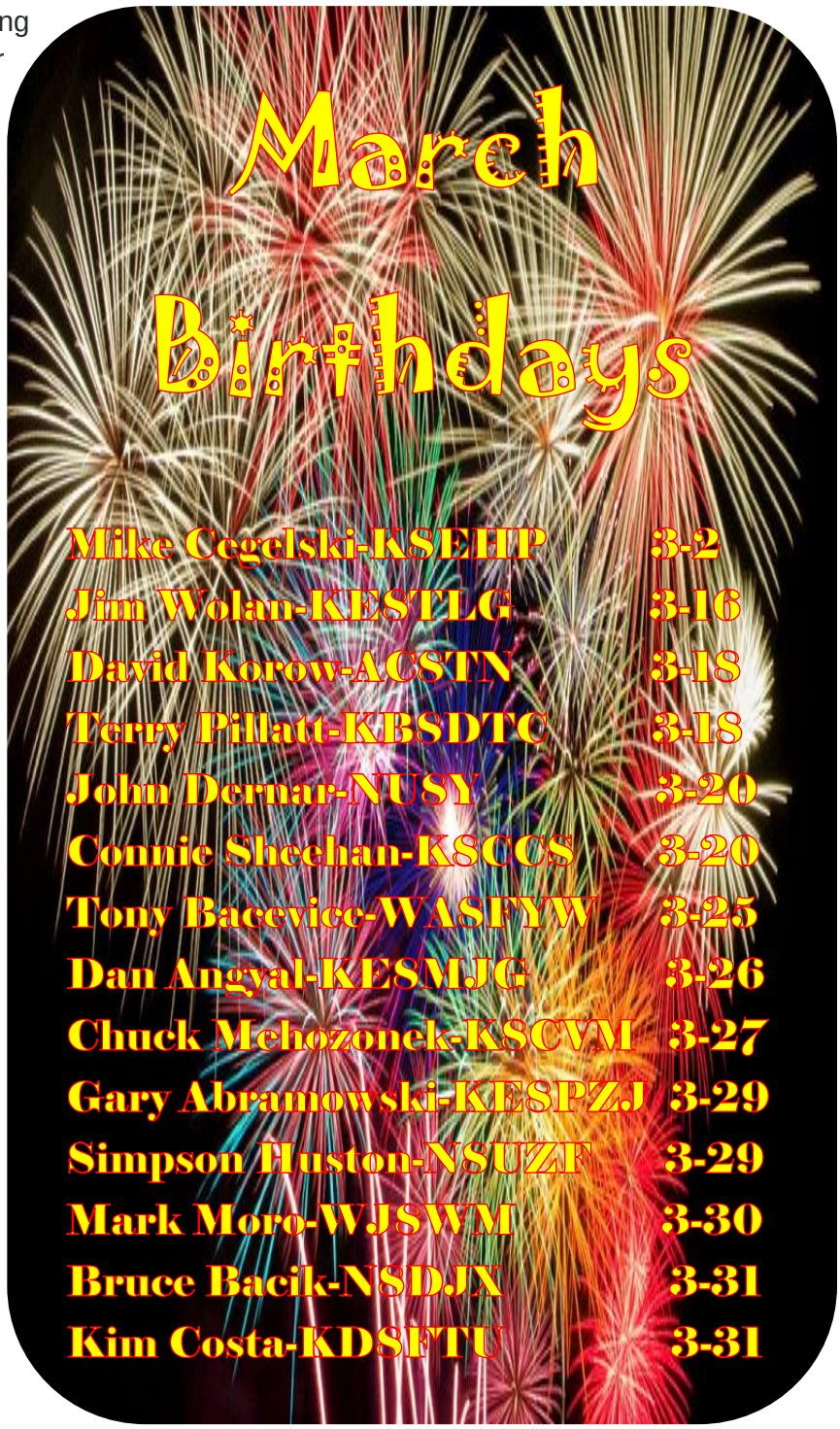
All CARS members are invited and welcome to attend the club's Executive Board meetings. Most of the business conducted at the Board meetings concerns policy or expenditures unrelated to general membership decisions. The next Board meeting will be held on March 21st at 6:00 PM, at the Clubhouse Restaurant on Pearl Road in Parma Hts.

Field Day

Bob, K8RGI, and I began planning the 2024 CARS Field Day late last summer. We needed a new site with Calvin Park being renovated and probably not appropriate for Field Day. We went to several other possible locations in Seven Hills, Brecksville, Independence, and Parma. Taking the “belt and suspenders” approach, we requested permission to use the various sites so we would be sure to have one for the big event. We were extremely impressed with Nike Park in Parma. It had all the good stuff: a large area to spread out tents and antennas, tall trees, water, electricity, and pavilions. The one snag was the park closes at dark. We still requested the use of the park explaining our event and history of compliance with other municipalities. The city agreed to let us use the park overnight. We will be meeting on site with city officials early in March to coordinate what areas of the park we will be using.

With the CARS Morse Code class completing another session it appears the CW contingent will be stronger than ever. Check out David’s article down the page. It’s a tough row to hoe, and David, AC8TN, is one tough cookie. He has persevered through two years of classes with success coming slowly. There are several individuals who David and Metro, W8MET, have trained that will add CW QSOs to our score. Well done men!

The lineup of stations appears to be improved over what we have fielded in quite some time. With more and more members contributing to our Field Day effort, it looks like not only will we have a great club activity, but we should score well and have CARS up near the top in the results.



February Meeting Minutes

LOCATION - The meeting was held on February 13th, 2024, at the Busch Funeral Home on Ridge Road in Parma, Ohio

CALLED TO ORDER - The meeting was called to order by President Toby Kolman, WT8O, at 7:30 PM

PLEDGE OF ALLEGIANCE - Those present pledged allegiance to the flag of the United States of America.

INTRODUCTIONS - Those present introduced themselves. The meeting had 23 attendees.

SEPTEMBER MINUTES - The January minutes were approved as published in the February issue of the *Wobbly Oscillator (WO)*.

TREASURER'S REPORT - Toby Kolman, WT8O, gave the treasurer report provided by Matt Perlman, KE8OZU. No concerns were reported with the financials.

PRESIDENT'S REPORT - Toby Kolman, WT8O, reported the following:

- Licensing classes - Starting February 29th, see the website for details.
- Vote on a new member. Tim Sanborn, KF8AAF, was approved as a new member.
- Thank you to everyone who sent in contributions to the *WO.*
- Roster accuracy and availability: please notify the webmaster or Toby if you have any changes.

Chuck, K8CVM, and John, NU8Y, talk to Daniel Reed about taking the CARS licensing class. (L)

The group admires the brave Navajo Code Talkers. (R)

VICE PRESIDENT'S REPORT - Ron Hollas, K8RJH, reported the following:
- Financial audits completed. No issues were found. Details will be the *WO*.

SECRETARY'S REPORT - Secretary Matt Neely, NU8H, informed the meeting guests where to find the donuts and drinks.

PUBLIC SERVICE - Chuck, K8CVM, shared the following upcoming events need volunteers:
- All CARS members are invited to the local ARES meeting. The meetings are held at the Helwig Whistle Stop on the third Tuesday of the month. Visit https://n8esg.org/ for details.
    - The topic for the February meeting is the National Traffic Handling System (NTHS)

VE UPDATE - Metro was not present to give a report. Toby, WT8O, reported that the last session went well. The next session is Sunday, March 10th, at 9:15 AM at the Old Elmwood Recreation Center, 6200 Pete Wisnieski Pkwy., Independence, OH 44131.

PROGRAM COMMITTEE - Joe, KD8BAL, reported that
- Today's program is Toby, WT8O, playing a video on the Navajo Code Talkers, radio operators from WWII.
- No program will occur at the March meeting; we have the dinner meeting and some extra business to cover.

TECH COMMITTEE - Scott, AC8NW, reported no concerns with the repeater. However, he shared that the club would need a new internet connection at the repeater site by the end of the year. Members shared ideas on potential solutions.

Matt, NU8H, warms up the keys before the meeting.

OLD BUSINESS - Toby, WT8O, led a discussion on the following:
- 10 (HF) Meter net
- New badge designs were shared

BOARD UPDATE - Mark Moro, WJ8WM, shared the next board meeting is March 21st at the Club House, 6365 Pearl Rd, Parma Heights, OH 44130. All Club members are welcome to attend Board Meetings. Only Board Members and Officers can vote.

REFRESHMENTS - Toby, WT8O, thanked Ron, K8RJH, for providing soft drinks and water, Matt, NU8H, for providing doughnuts, and John, NU8Y, for providing coffee.

NEXT MEETING - The next meeting of The Cuyahoga Amateur Radio Society will be a dinner meeting on March 12th at My Friends Restaurant, 11616 Detroit Ave, Cleveland. OH 44102. Dinner will be at 6:00 PM, with the meeting starting at 7:30.

50/50 Drawing - Andy, KD8SCV, won the 50/50 drawing.

ADJOURNMENT - Toby, WT8O, adjourned the meeting.

Submitted by Matt Neely, NU8H, CARS Secretary

Zoey Schrader picks the winner.

The VP delivers.

WT8O presents on the Navajo Code Talkers.

(Left) ANDY, KD8SCV, laughs with the group at his winning ticket.

ARRL – The Vision is in the Name
Ron, K8RJH

The Amateur Radio Relay League (ARRL) has an impressive history that has impacted the growth of wireless in America over the past century and provided a resource of public service volunteers within our communities. Most of us licensed hams know it as a formal organization which is "*Amateur Radio's proactive advocate and representative voice in achieving regulatory and legislative success. The ARRL is its members' primary resource for lifetime learning, certification, and personal achievement in Amateur Radio*."

It may surprise many today that in the early 1900's, the reputation of Amateur Radio was not held in good esteem. Early ham radio stations did cause interference with the new broadcast and government services. Companies such as General Electric, Westinghouse, and Western Electric and even the Navy, campaigned against Amateur Radio. The argument included Private Citizens, Commercial and Maritime Radio reporting interference that impacted the consistent reception of wireless communications. Today, the equipment used in the turn of the century is generally not permitted to be operated on-air, even for demonstration purposes.

The beginnings of the relay idea. Courtesy QST, February 1916, p. 21.

Central to the ARRL in 1915-1917 was this idea of relaying messages. A few initial attempts by the ARRL at a transcontinental relay failed.

Finally, in February 1917 a relay was accomplished from New York to Los Angeles and then back to New York. The relay took 1 hour and 20 minutes. One of the positive values and contribution of Amateur Radio to the common good was demonstrated and reported by the press.

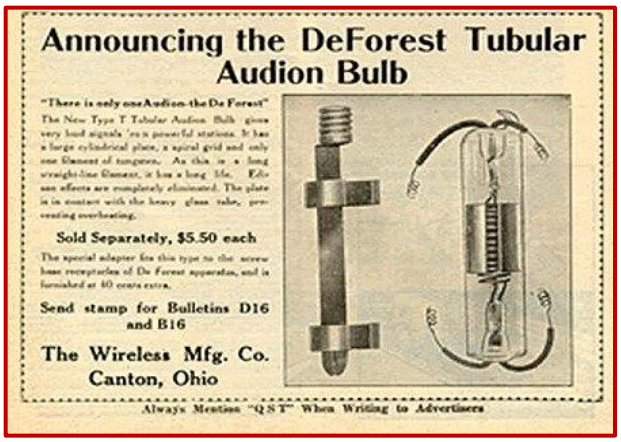
A map of proposed "Trunk lines" for message passing across the United States was published in QST February 1916.

The US Radio Act of 1912, formally known as “An Act to Regulate Radio Communication,” was the first U.S. federal law to require licenses for radio stations. It was enacted before the introduction of broadcasting to the general public. This regulation restricted most amateur stations to wavelengths below 200 meters (equivalent to frequencies above 1500 kHz) and limited the transmitter output to one kilowatt of power. This assignment significantly limited their transmitting range until the discovery of the great distances achievable through shortwave transmissions a decade later. With this wavelength and power limit it was thought that this would contain the Amateurs to short range communication, around 300 miles, and minimize overall interference. However, even with these restrictions, by 1914 there were about 5,000 licensed Amateurs in the United States and the interest in wireless was growing!

During this time, a radio enthusiast Hiram Percy Maxim became active in Amateur Radio in 1910 and was instrumental in forming the Radio Club of Hartford (Connecticut) in March of 1914 with 39 members, a constitution, and bylaws.

Maxim was interested in obtaining an Audion tube for experimenting in his radio station. The Audion tube was invented by Lee DeForest in 1905. The Audion tube was the primitive predecessor of the Triode. Maxim knew of an Amateur a few towns away that had an Audion. His attempt to contact this Amateur directly using wireless were not successful due to the distance and conditions with the 1912 Radio Act Legislation.

Hiram Percy Maxim – ARRL Founder and Visionary. (Left)


Announcing the DeForest Tubular Audion Bulb
"There is only one Audion—the De Forest"
Sold Separately, $5.50 each
Send stamp for Bulletins D16 and B16
The Wireless Mfg. Co.
Canton, Ohio
Always Mention "QST" When Writing to Advertisers

QST Advertisement of an Audion Bulb (tube) manufactured in Canton, OH. (Right)

But Maxim did know an Amateur at a distance between himself and the Amateur who had the tube. He was able contact this Amateur who was nearby and ask this Amateur to contract the Amateur who had the Audion tube and inquire on its availability. The result was a practical demonstration of Amateurs collaborating in “message passing” or “relaying”.

This experience created the vision for creating a cohesive group of Amateurs in various geographic locations across the United States who would be on the air during certain periods of time who would commit to pass messages one to another. This national concept of a “relay” which Maxim demonstrated to himself that works locally and finding him the Audion tube that he wanted. What was also needed was an organization to bind all the Amateurs together. Binding people together creates a synergy of collaboration and provides the possibility for a collective mission and purpose.

Maxum’s vision originated the beginnings of the American Radio RELAY League (ARRL). It would be a national organization that would have the power to lobby legislators in favor of Amateur Radio. Legislation was needed to free the Amateurs of their restrictions to 200 meters and below, and one Kilowatt of power if Amateurs wanted to communicate over long distances.

In February 1915, Maxim incorporated the ARRL as a national organization under the laws of Connecticut. By the end of 1915 the ARRL had 600 members. In December of 1915 the first issue of QST was published and distributed to all 600 ARRL members free of charge.

For Additional Information, Check out the QST February 1916 Article on Practical Relaying
https://en.wikisource.org/wiki/QST/February_1916/Practical_Relaying

CARS CW CLASS 2023-2024

David, AC8TN

Another year has passed, and our 11 session CW course concluded last night at the Seven Hills Community Room. Metro, W8MET, and I did a mock QSO with Simpson, N8UZF, and then gave him his Certificate of Completion. We posed for this photo, so we could share this occasion with all of you.

Simpson and our other students worked hard since our first class on September 21st, to master Morse code. But due to heavy workloads and the business of life we had one student graduate from all of this effort.

This article is being written to recognize Simpson for his hard work and dedication and hopefully to inspire others to take on the challenge of learning Morse code.

The FCC eliminated Morse code from exam requirement exactly in February, 2007. In human terms, generation time ranges from 20 to 30 years. So we can say that for almost an entire generation, all new amateur radio licensees have not been required to learn Morse code to pass their FCC exam. It's estimated that less than 1% of the entire human population can read Morse code. Saying it's a dying art is probably an understatement. Still Hams worldwide embraced this form of communication as evidenced by all of the activity during this past weekend's ARRL International DX CW Contest.

As some of you may know from a prior article I wrote for the *WO*, 2023 was my year dedicated to only CW operation. During that 12 month period I increased my copying speed and confidence using Morse code. I also confirmed via LoTW, more than 150 different countries, and brought my total mixed DXCC count to 218 entities. CW is my go to mode for quick QSO's and for busting pileups. It is quick, elegant, and very time efficient. A typical DX QSO is less than 10 seconds in length. The feeling of exhilaration after making your 1st or 1,000th CW QSO never goes away. Knowing that you're using a communication mode that's been around for more than 160 years makes it feel special to me.

Morse code is a new language and takes disciplined study and a real desire to learn. The Koch method uses a character speed that is typical to what you would hear on the air, about 20 WPM. However it starts the student off at a much slower word speed, 5-15 WPM. As the student learns the characters and naturally increases word speed, their overall performance improves. Like anything else, practice is required and with free online software trainers like LCWO.net, anyone can learn the code at their own pace. Joining a CARS CW class gives you the additional benefit of the teachers' experience and the support from your fellow students.

Watch the *WO* for announcements and signup for the new CARS CW class beginning autumn 2024.

Cuyahoga Amateur Radio Society
2023 Audit Committee Report
Ron, K8RJH

This year's Audit Committee met on February 3, 2024 for the purpose of reviewing and preparing the annual C.A.R.S. 2023 Financial Audit report. The committee members, President Toby Kolman,WT8O; Eddie Stevens, KD8FTS; Matt Perlman, KE8OZU, and Ron Hollas, K8RJH, reviewed the financial statements prepared and presented by club Treasurer Bob Check, W8GC.

Upon review the members concluded all was in order of the C.A.R.S. club finances.

The Cuyahoga Amateur Radio Society is financially strong. However, good stewardship is not a replacement for income and fundraising. As previously stressed, we need to find additional income streams to fund activities and programs desired by the members. This is not just a function of the executive board. All suggestions are welcome.

We all owe Bob Check a thank-you for his dedication, service, and care of the C.A.R.S. finances over the many past years and welcome Matt Perlman as the new C.A.R.S club treasurer for 2024.

Next CARS Meeting

Tuesday, Mar. 12 – 7:30 PM

My Friends Restaurant
11616 Detroit Ave
Cleveland. OH 44102
Dinner Reservations

***** 6:00 PM *****

See Website for Details - www.2cars.org

CARS Repeaters

146.820 (-) PL Tone 110.9

Analog Repeater

Main Site – Brecksville

Receive Only Site – Brunswick

Receive Only Site – Shaker Hts.

AllStar Node 47067

EchoLink Node 343470 (K8ZFR-R)

WIRES X Node 91242 Room 01242

****

443.825 (+) PL Tone 131.8

Digital Yaesu Fusion

Linked to 146.820 Repeater

Brecksville

****

444.75 (+) PL Tone 131.8

Analog Repeater

Not Linked to Other Repeaters

Shaker Hts.

2023: A Good Year
David, AC8TN

As the ARRL did in in 2014 for the Centennial Celebration, December 31, 2023 concluded the yearlong celebration honoring ARRL volunteers with; Volunteers on the Air (VOTA).

Portable W1AW/# stations in all 50 states and in several US Possessions/Territories conducted QSO's that generated points.

Each state was activated twice for 1 week periods during the year. Three modes were used for communications including SSB, CW and Digital. Finally after uploading your log to LoTW, VOTA Certificates showing overall rank, total score, total QSO's and rank can be downloaded from the ARRL site.

Given this opportunity and the fact that I decided to operate only CW in 2023 this VOTA event seemed like a great way to earn a CW, Worked All States (WAS) certificate, working only VOTA W1AW/# stations.

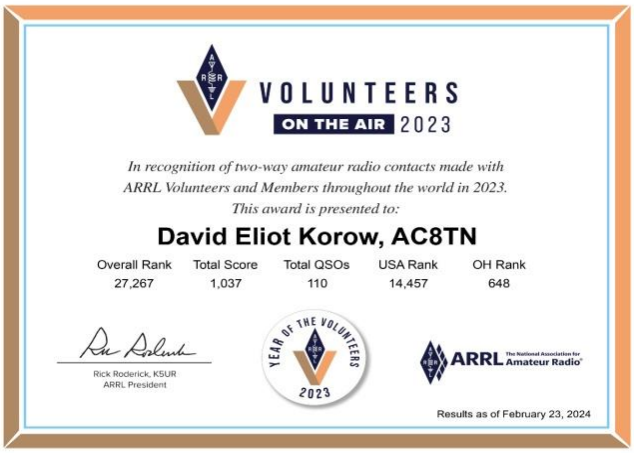
Another benefit of participating in this event would be band fills to work towards my 5-band WAS certificate.

It was great fun looking for VOTA stations every time I was on the air. Running between 160M-10M often times allowed me to work 3 of 4 W1AW/# operators in one day. Pile-ups typically always formed whenever a VOTA station were spotted, adding to the challenge of making the contacts. Morse speed from VOTA operators varied widely, from about 20WPM to well over 30WPM.

So how did I do? I worked 43 states, had 110 confirmed QSO's and ranked 648 in Ohio. Here is a copy of the ARRL certificate.

Taking part in events like this makes the hobby always new and challenging. Being on the hunt for a VOTA station in a new state added a lot of fun to my 2023 operating experience. Events like POTA and SOTA have become routine and give both activators and participants a thrill every time a QSO is made.

Participate in these events and you can be sure there will be many more in the future.


VOLUNTEERS
ON THE AIR 2023

In recognition of two-way amateur radio contacts made with ARRL Volunteers and Members throughout the world in 2023. This award is presented to:

David Eliot Korow, AC8TN

Overall Rank	Total Score	Total QSOs	USA Rank	OH Rank
27,267	1,037	110	14,457	648

Rick Roderick, K5UR
ARRL President

YEAR OF THE VOLUNTEERS 2023

ARRL The National Association for Amateur Radio

Results as of February 23, 2024

March Net Sked

March	6	K8RJH
March	13	KD8ACO
March	20	AC8NW
March	27	AC8TN

Nets are run every Wednesday at 9:00 PM on:

146.820 (PL 110.9)

443.825(+) PL Tone 131.8
Digital Yaesu Fusion / C4FM
Linked to the 146.82 Repeater

EchoLink Node 343470 (K8ZFR-R)

Allstar Node 47067

WIRES X Node 91242-Room 01242

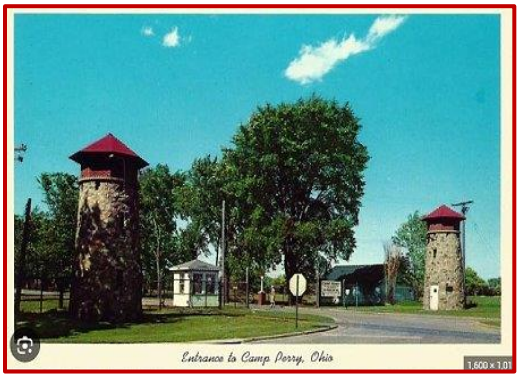
Camp Perry Shooting Range is Open to the Public
John, NV8Y

If you are looking for a place to hone your 100 yard shooting skills, the Petrarca outdoor range at Camp Perry in Port Clinton might just be the place for you. The Range is open to the public on most Mondays from 8:00 AM to 6:00 PM. The cost is just $10 per hour. The targets are all electronic. At your bench, you get your own computer screen so that you can see exactly where your shots hit the target. Ammo up to .30-06 can be fired on this range.

Government surplus M-1 Garand rifles, ammunition, and miscellaneous military items can also be purchased at the CMP (Civilian Marksmanship Program) store on the grounds.

Next month I will share with you some highlights of the absolutely beautiful Gary Anderson CMP Competition indoor air rifle range at Camp Perry. This high-tech facility is equipped with 80 electronic, 10-meter target ranges, and is also open to the public. I have seen shooters from 5 to 95 years old enjoying this sport. So, bring your grandkids here for a unique outing. You can rent everything you need here or even buy your own government surplus air rifle for them to learn on.

I have practiced at both of these ranges many times over the years. We are fortunate to have these facilities only an hour and a half away from Cleveland. *[Check out John's awesome photos below. Ed]*



March VE Session

The next VE testing session will be held Sunday, March 10th, at 9:15 AM at the Old Elmwood Recreation Center, 6200 Pete Wisniesky Parkway, Independence 44131. Directions and a map are on the CARS website homepage. For information or an appointment please contact Metro, W8MET, at 216-520-1320 or metro351@sbcglobal.net

As always, walk-ins are welcome.

Amelia Earhart's Plane

Bob, KC8MRC

Amelia Earhart's plane may have been found in the South Pacific near Howland Island at about 16,500 feet below sea level. If it is her plane, none of her remains may be left since there are small organisms that make quick work at eating flesh and bones at that depth.

WANTED:

Heathkit HW-101 Transceiver in good physical condition and operational. Also looking for a Heathkit HP-23B Power Supply.

Tom Miller, W1PD ***W1PDI@ARRL.net*** ***Cell: 440-590-5777*** ***Avon Lake, OH***

Honorary Members

Any person who by nature of outstanding or meritorious contribution to the furtherance of amateur radio and the ideals of the Cuyahoga Amateur Radio Society

Robert Check, W8GC
Elected 2/10/15

Thomas Wayne, WB8N
Elected 1/10/17

Dwaine Modock, K8ME/SK
Elected 5/9/17

Toby Kolman, WT8O
Elected 10/10/17

Jerry Smith, NW9H
Elected 5/8/18

Ron Borkey, K8VJG/SK
Elected 5/14/19

Ed Stevens, WB8ROK/SK
Elected 8/10/21

Vince Bak, N8OVW/SK
Elected 11/14/23

THE SEABEES' MEMORIAL IS INSCRIBED WITH THEIR MOTTO "CAN DO" AND THE PHRASE "WITH WILLING HEARTS AND SKILLFUL HANDS, THE DIFFICULT WE DO AT ONCE, THE IMPOSSIBLE TAKES A BIT LONGER."

THE SEABEES' UNUSUAL NAME COMES FROM THE PRONUNCIATION OF C.B. FOR "CONSTRUCTION BATTALIONS." THE INSPIRED SEABEE LOGO, WHICH DEPICTS A BUZZING BEE HOLDING CONSTRUCTION TOOLS AND A RIFLE. WORKING UNDER THE MOTTO "CONSTRUIMUS, BATUIMUS," MEANING, "WE BUILD, WE FIGHT."

The *Wobbly Oscillator* is a publication of the Cuyahoga Amateur Radio Society. Articles from this publication may be reprinted in any ham radio publication, if credit is given to this publication and the author, if known. All submissions should be emailed to: Toby Kolman, WT8O at wt8o@att.net

2024 CARS Committees, Officers, Board and Trustees

CARS 2024 Committees

50/50
Chair: Andy Evridge, KD8SCV

Audio/Video
Chair: Scott Smith, AC8NW

Awards
Co-Chairs: Bob Check, W8GC and Toby Kolman, WT8O

Fund Raising
Chair: Bob Check, W8GC
Members: Ron Hollas, K8RJH, Matt Perlman, KE8OZU and Gary Schmid, WA8GCR

ARRL Liaison
Chair: Ron Hollas, K8RJH

Audit
Chair: Ron Hollas, K8RJH
Members: Eddie Stevens, KD8FTS and Toby Kolman, WT8O

Field Day
Co-Chairs: Bob Robbins, K8RGI and Toby Kolman, WT8O
Members: Scott Smith, AC8NW, David Korow, AC8TN, Arp Viiberg, K8ARP, Ron Hollas, K8RJH, Andy Evridge, KD8SCV and Mark Moro, WJ8WM

Hamvention Bus
Chair: Eddie Stevens, KD8FTS
Member: Toby Kolman, WT8O

Historian
Chair: Toby Kolman, WT8O

Holiday Party, Summer Picnic
Chair: Toby Kolman, WT8O
Members: Arp Viiberg, K8ARP, Kim Balach Costa, KD8FTU, Diane Balach, KD8FTV and Mark Moro, WJ8WM

License Classes
Chair: David Noeth, KD8ACO
Members: Joel Chaney, K8SHB and Toby Kolman, WT8O

Media Representative
Chair: Andy Evridge, KD8SCV

Membership
Chair: Toby Kolman, WT8O
Member: Bob Check, W8GC

Net
Chair: Toby Kolman, WT8O
Members: Scott Smith, AC8NW, David Korow, AC8TN, Ron Hollas, K8RJH and David Noeth, KD8ACO

Newsletter
Chair: Toby Kolman, WT8O

Programs at Meetings
Chair: Joe Ulaszewski, KD8BAL
Members: Eddie Stevens, KD8FTS and Matt Perlman, KE8OZU

Property to Sell Custodian
Chair: Bob Check, W8GC

Public Service
Chair: Eddie Stevens, KD8FTS
Member: Arp Viiberg, K8ARP

QSL Manager
Chair: Metro Sinko, W8MET

Quartermaster
Chair: Toby Kolman, WT8O

Records Custodian
Chair: Terry Pillatt, KB8DTC

Refreshments - Coffee
Chair: John Dernar, NU8Y

Refreshments - Donuts
Chair: Matt Neely, NU8H

Refreshments - Pop
Chair: Ron Hollas, K8RJH

Scholarship
Chair: Bob Check, W8GC
Members: Bob Robbins, K8RGI, Ron Hollas, K8RJH, Matt Perlman, KE8OZU and Toby Kolman, WT8O

Sunshine (Welfare)
Chair: Andy Evridge, KD8SCV

Technical
Chair: Scott Smith, AC8NW
Members: Mark Scoville, AD8KE, Ron Hollas, K8RJH, Terry Pillatt, KB8DTC, Mark Rosewicz, KC8ESG, David Noeth, KD8ACO and Mark Moro, WJ8WM

VE Exams
Chair: Metro Sinko, W8MET

Webmaster/email
Chair: Bob Check, W8GC
Member: Matt Perlman, KE8OZU

2024 Officers

President
Toby Kolman, WT8O
440-525-6109
wt8o@att.net

Vice-President
Ron Hollas, K8RJH
216-379-7440
ron@hollas.co

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Matt Neely, NU8H
216-965-4476
matt@matthewneely.com
Alternate Secretary: Matt Perlman, KE8OZU

Treasurer
Matt Perlman, KE8OZU
216-337-1540
matt@seagem.me

CARS 2024 Executive Board

Board Chair

Mark Moro, WJ8WM
216-496-2871
Alternate: Arp Viiberg, K8ARP

Odd Year Board Members

Arp Viiberg, K8ARP, Bob Robbins, K8RGI and Eddie Stevens, KD8FTS

Even Year Board Members

Scott Smith, AC8NW, John Dernar, NU8Y and Mark Moro, WJ8WM

CARS License Trustees

K8ZFR Trustee

Toby Kolman, WT8O

W8HBI Trustee

Bob Check, W8GC

W8BM Trustee

Bob Check, W8GC

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